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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,845

12/09/2003

Michael Kilian

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EXAMINER

TAYLOR, NICHOLAS R

ART UNIT

PAPER NUMBER

2141

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/731,845	<b>Applicant(s)</b> KILIAN ET AL.	
	<b>Examiner</b> NICHOLAS TAYLOR	<b>Art Unit</b> 2141	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-13,15-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,12,15-18,23,24 and 26 is/are rejected.
- 7) ☒ Claim(s) 2,8-11,13 and 19-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1, 2, 4-13, 15-24, and 26 have been presented for examination. Claims 1, 4-7, 12, 15-18, 23, 24, and 26 are rejected. Claims 2, 8-11, 13, and 19-22 are objected to.

### ***Response to Arguments***

2. Applicant's arguments filed December 26th, 2007, have been fully considered but they are deemed not persuasive.

3. In the remarks, applicant argued in substance that:

(A) The prior art of Tolia does not teach creating content addresses for units of data to comprise any information that provides an indication of which units of data were written to the storage system proximate in time. Any information related to proximate time in the Tolia reference, such as the time last modified, provides no indication about which specific data block subsets were modified at that time.

As to point (A), Tolia teaches the use of a content addressable storage (CAS) system that uses expanded content addresses (via "file recipes") in a distributed storage system (see abstract). The CAS system in Tolia is used to improve the performance of a conventional distributed system built on the client-server model (see

introduction section 1). Given a broadest reasonable interpretation of the claim language, Tolia's system provides content address functionality for units of data to indicate which units of data are written to the storage system proximate in time (e.g., see the recipe of fig. 1 and section 3). The content address further includes a hash of at least a portion of the unit of data and the "first information" is adding to the hash. As to the argument that a file in Tolia may be modified in such a way that the proximate time indication would not accurately reflect the modification of a subset of data blocks, it is respectfully submitted that Tolia need not reflect the proximate time in all possible file-write scenarios in order to teach the claimed limitations. As currently presented, the independent claims teach only a scenario of creating a content address wherein a host may use such address to access units of data. Restrictions on the use of a created content address with respect to future reading and writing activity are not present in the claim language and will not be read into the independent claim limitations.

***Allowable Subject Matter***

4. Claims 2, 8-11, 13, and 19-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1, 4-7, 12, 15-18, 23, 24, and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by Tolia, et al. (“Opportunistic Use of Content Addressable Storage for Distributed File Systems”).

7. As per claims 1, 12, and 23, Tolia teaches a method of processing data in a computer system comprising at least one host and at least one content addressable storage system which stores units of data for the at least one host, wherein the at least one host accesses a unit of data using a content address based at least in part on the content of the unit of data, the method comprising an act of: (Tolia, section 5 implementation and fig. 2)

(a) creating the content addresses for units of data to comprise first information that provides an indication of which units of data are written to the storage system proximate in time (Tolia, section 3 recipes discussion)

wherein the act (a) comprises, for at least one of the units of data, acts of:

creating a hash of at least a portion of the unit of data; and

adding the first information in the hash to create the content address for the one of the units of data (Tolia, see hash creation and discussion of section 3; see also fig. 1 sample recipe).

8. As per claim 4 and 15, Tolia teaches the system further wherein the act of adding the first information to the hash further comprises creating the first information at the at least one host (Tolia, e.g., the discussion of the recipe service implementation in section 5.1).

9. As per claim 5 and 16, Tolia teaches the system further wherein the act of adding the first information to the hash further comprises creating the first information at the at least one storage system (Tolia, e.g., the discussion of the recipe service implementation in section 5.1).

10. As per claim 6 and 17, Tolia teaches the system further wherein the act of adding the first information to the hash further comprises creating the first information at the at least one storage system and the at least one host (Tolia, e.g., the discussion of the recipe service implementation in section 5.1).

11. As per claim 7 and 18, Tolia teaches the system further wherein the first information includes at least a portion of a timestamp relating to when the one of the units of data is written to the at least one storage system (Tolia, see recipe section 3 and, e.g., the file structure of figure 1 with respect to timestamp usage).

12. As per claim 24, Tolia teaches the system further wherein the controller accesses one of the units of data by providing the content address for the one of the units of data

to the content addressable storage system (Tolia, section 3 recipe discussion; see fig. 1 sample file recipe).

13. As per claim 26, Tolia teaches the system further wherein the first information includes at least a portion of a timestamp relating to when the one of the units of data is written to the at least one content addressable storage system (Tolia, see recipe section 3 and, e.g., the file structure of figure 1 with respect to timestamp usage).

### ***Conclusion***

14. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/NT/  
Nicholas Taylor  
Examiner  
Art Unit 2141

/Jason D Cardone/  
Supervisory Patent Examiner, Art Unit 2145